# Louisiana Department of Environmental Quality (LDEQ) Office of Environmental Services

### STATEMENT OF BASIS

Bollinger Amelia Operations LLC
Amelia Operations
Amelia, St. Mary Parish, Louisiana
Agency Interest Number: 130128
Activity Number: PER19960001
Proposed Permit Number: 2660-00105-V0

#### I. APPLICANT

Company:

Bollinger Amelia Operations LLC PO Box 250 Lockport, Louisiana 70374-0250

Facility:

Bollinger Amelia Operations 816 Bollinger Lane Amelia, St. Mary Parish, Louisiana Approximate UTM coordinates are 683.319 kilometers East and 3281.126 kilometers North, Zone 15

### II. FACILITY AND CURRENT PERMIT STATUS

The Bollinger Amelia Operations consist of ship, boat, and barge repair and fabrication. The main activities include welding, cutting, abrasive blasting, panel line shot blasting, and painting of vessels. Peripheral operations include diesel, gasoline, and oil tanks, storage tanks for barge/marine vessel cargos, tanker truck loading, barge/marine vessel venting, diesel and gasoline combustion sources, traffic on unpaved roads, and fugitives. Repair operations include activities ranging from minor painting projects to major modifications of the vessel hull. Construction and fabrication of new vessels are conducted by an assembly line method.

Bollinger-Amelia Operations includes Bollinger Marine Fabricators, Bollinger Amelia Repair, and Bollinger Morgan City. Bollinger Marine Fabricators currently operates under Agency Interest No. 27417 and is not permitted;

Bollinger Amelia Repair currently operates under Agency Interest No.255 and Permit No. 2660-00102-00, issued June 26, 1992; and Bollinger Morgan City currently operates under Agency Interest 26061 and Permit Number 2660-00184-01, issued May 12, 2005.

Bollinger Marine Fabricators had "grandfathered" status until the promulgation of the "Part 70" program within Louisiana. The facility submitted timely applications for initial Part 70 permits and continues to operate pursuant to the "application shield" provided in the program.

### III. PROPOSED PROJECT/PERMIT INFORMATION

### Application

A permit application and Emission Inventory Questionnaire were submitted by McDermott, Inc., dated October 10, 1996, for a Part 70 Operating Permit for the Bollinger Marine Fabricators facility. Bollinger Marine Fabricators, L.L.C. submitted a revised permit application and EIQ, dated November 19, 1999, for a Part 70 Operating Permit reflecting the current operation as a barge fabrication yard. This application was replaced by an application dated May 20, 2005, which also included the addition of the Amelia Repair, and Morgan City operations. An application was prepared to update changes to the facility after Hurricane Katrina. This permit is based on the application dated August 11, 2006 along with supplemental information dated September 29, 2006, October 10, 2006, and November 9, 2006.

### **Project**

Bollinger Shipyards, Inc. proposes to obtain an initial Part 70 Operating Permit to combine the three contiguous facilities, as well as to increase permitted emission rates to ensure permitted emissions reflect current and future operations.

Changes at the facilities are primarily due to an increase in the existing operations and workforce. This permit also updates emission calculations, and establishes facility caps.

The facility has requested flexibility in TAPs emissions in order to accommodate the use of various materials at different parts of the facility.

### **Proposed Permit**

Permit 2660-00105-V0 will be the initial Part 70 operating permit for Bollinger Amelia Operations.

### **Permitted Air Emissions**

Estimated emissions in tons per year are as follows:

Pollutant	Emissions	
$PM_{10}$	77.61	
$SO_2$	0.57	
$NO_X$	9.94	
CO	3.07	
VOC	150.02	

LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

Pollutant Typical Emisions	
Antimony	<0.01875
Arsenic	< 0.0125
Barium	0.22
Benzene	<0.13
Beryllium	< 0.0125
Biphenyl	< 0.04875
Cadmium	< 0.0125
Chromium	0.058
Copper	1.48
Cumene	<9
Dibutyl phthalate	0.29
Ethyl benzene	<10
Glycol ethers	0.34
Manganese	0.526
Methanol	<10
Methyl ethyl ketone	<10
Methyl isobutyl ketone	<7.5
Naphthalene	< 0.995
Nickel	< 0.0125
PAH	< 0.0125
Phenol	< 0.7
Selenium	< 0.0125
Styrene	<1
Toluene	<10

LAC 33:III	Chapter 51	Toxic Air Pollutants	(TAPs)

Pollutant	lutant Typical Emisions	
Toluene-2,4-diisocyanate	0.022	
Toluene-2,6-diisocyanate	0.022	
Xylene	17.01	
Zinc	2.78	
n-Hexane	<6.5	
n-butyl alcohol	22.91	
Total	66 56*	

<sup>\*</sup> Aggregate emissions shall be limited to 66.56 tpy. The permittee may emit TAPs, not specifically listed, at rates below the MER. Emissions in excess of the total TAP limit for any 12 consecutive month period shall be a violation of the permit.

### IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

### Applicability and Exemptions of Selected Subject Items

ID No.	Requirement	Note
Facility Wide	Chemical Accident Prevention [LAC 33:III.5907] [40 CFR 68]	DOES NOT APPLY. Facility does not produce, process, handle, or store any substance listed in greater than the threshold amounts.
EQTS 1-3, 17- 18, and EQT 20- 25	NSPS Subpart Ka — Standards of Performance for Storage Vessels for Petroleum liquids for Which Construction, Reconstruction, or Modification Commences after May 18, 1978 and Prior to July 23, 1984.  [40 CFR 60.110a]	DOES NOT APPLY. Tank capacities <40,000 gallons

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ID No.	Requirement	Note
EQTS 1-3, 17- 18, and EQT 20- 25	NSPS Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.  [40 CFR 60.110b]	DOES NOT APPLY. Tank capacities <19,813 gallons
	Control of Emissions of Organic Compounds [LAC 33:III.2103.A]	EXEMPT. Vapor pressures <1.5 psia
EQT 19	NSPS Subpart Ka – Standards of Performance for Storage Vessels for Petroleum liquids for Which Construction, Reconstruction, or Modification Commences after May 18, 1978 and Prior to July 23, 1984.	DOES NOT APPLY. Tank capacities <40,000 gallons
	[40 CFR 60.110a]  NSPS Subpart Kb — Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.  [40 CFR 60.110b]	DOES NOT APPLY. Tank capacities <19,813 gallons
ARE 4		DOES NOT APPLY. Cutting emissions are below MER for TAPS emitted
	Emissions Standards for Sulfur Dioxide [LAC 33:III.1511.A]	EXEMPT. Source emits less than 100 tons SO2 per year
EQTS 5- 14	NESHAP Subpart ZZZZ- Stationary Reciprocating Internal Combustion Engines [40 CFR 63.6590]  Comprehensive Toxic Air Pollution Emission Control Program	EXEMPT. All engines below 500 brake horsepower.  DOES NOT APPLY. Emissions from combustion of Group
	[LAC 33:III.5109.A]	1 virgin fossil fuels are exempt.

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ID No.	Requirement	Note
FUG 1	Pumps and Compressors [LAC 33:III.2111.A]	DOES NOT APPLY. Pumps and compresssors do not handle VOCs ≥ .5 psia.

### Prevention of Significant Deterioration/Nonattainment Review

A PSD permit is not required for this facility.

### **MACT Requirements**

Bollinger Amelia Operations is a major source of toxic air pollutants. Bollinger meets MACT requirements by complying with the NESHAP II requirements for coating operations. Use of Flux Core Arc Welding and Submerged Arc Welding where possible is determined to be MACT for welding operations and best management practices is determined to be MACT for abrasive blasting operations.

### Air Quality Analysis

Louisiana Toxic Air Pollutant (LTAP) dispersion modeling was performed for three LTAP compounds with emissions above the Minimum Emission Rate chosen by the ratio method. Initial screening modeling results showed that modeled concentrations for chromium VI, manganese, and zinc exceeded 7.5% of their respective AAS, which required that the initial refined model be developed. Refined modeling results showed that the modeled concentration of chromium VI, manganese, and zinc were less than 75% of the AAS; therefore, no further modeling demonstrations are required.

#### General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

### **Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX - Insignificant Activities of the proposed permit.

### V. PERMIT SHIELD

A permit shield is not a component of this permit.

#### VI. PERIODIC MONITORING

The facility will monitor facility-wide emissions of TAPs to comply with a federally enforceable limit.

### VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide  $(H_2S)$  – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO<sub>X</sub>) – Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane ( $CH_4$ ), Ethane ( $C_2H_6$ ), Carbon Disulfide ( $CS_2$ )

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub> – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) – An oxide of sulfur.

Sulfuric Acid  $(H_2SO_4)$  – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.